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ABSTRACT

To determine college students' level of geographic awareness, a test was administered to 2,200 students (both freshmen and upperclassmen) in eight colleges and universities in North Carolina. The test, which required students to complete statements about geography, was patterned after a geography examination sponsored by the New York Times in 19[illegible] that was administered to 4,752 students throughout the United States. Descriptive information concerning each student's geography background was also obtained. Seventy-one percent of the students who took the test never had reference to geography in their elementary schooling, 65 percent never had a course in junior high school relating specifically to geography, and 73 percent had no geography in senior high school. The students' poor geographic background may account for their lack of geographic factual knowledge as revealed by the test. If 70 percent is considered a passing grade, 97 percent of the freshmen and 93 percent of the upperclassmen failed. The extent of geographic ignorance displayed by the students is illustrated by a breakdown of scoring on individual questions. A copy of the geography test used is provided. Data on student background and comparison of the 1984 test with the New York Times (1950) test scores are also included. (RM)

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GEOGRAPHY:
NO "WHERE" IN NORTH CAROLINA 1984

Richard J. Kopec
University of North Carolina
Chapel Hill, North Carolina

1984

SP 016 218

GEOGRAPHY: No "Where" in North Carolina 1984

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Education today is charged with the responsibility of providing the means for our citizens to cope with life on a "rapidly shrinking planet where population is exploding, resources dwindling, and pressures for food and space intensifying." Our youth must be given fundamental training in and be taught to understand the global patterns of those phenomena, systems, and their interactions which will shape their lives. For a country expected to provide world leadership and whose social matrix is inextricably woven into world affairs, we are amazingly uninformed of its geography. Most problems facing the present and future generations are geographic in nature. "Where will the United States put another 100 million people by the year 2000? Where will the cities be located to accommodate these people? Where will the resources be found to feed, clothe and house these new Americans much less the three billion neighbors they will acquire in the next thirty years?" These are the types of geographic questions that Education must equip its students to answer or at least understand. Thus far our educational system has failed in this task most miserably.

Recognizing the growing depth of geographic ignorance in the United States, geographers throughout the country spearheaded by their professional organizations, such as the Association of American Geographers and the National Council for Geographic Education, are once again attempting to bring to the attention of the public the extent of this ignorance and the need for more geography to be taught in our schools at all levels. Brochures and notices, lobbyists and petitions, letters and visitations are some of the means which geographers have employed in their attempt to promote awareness among and influence people on school boards, state educational associations, and in politics.

Geographers in North Carolina have joined in this mission. Chairmen of Departments of Geography in our university system met in 1904 to discuss and formulate plans of action to rectify geographic ignorance in the Tarheel State. Several approaches were discussed and agreed upon one of which was to administer an exam dealing with <u>geographic facts</u> to introductory college classes at the start of the fall semester. This measure of geographic awareness is neither original nor recent. It is a means employed periodically through the years in an attempt to make Americans concious of their geographic ignorance. The efficacy of such exams has been mostly negative. However, of late many variations of this device have been administered among the States with some positive reactions. Importantly, the media in several instances have reported the embarrassing test scores thereby providing geographers with "ammunition" in their quest to bring more geography into the schools. The chairmen agreed that the time was propitious for us to take advantage of this approach in hopes of effecting change in pre-college curricula in this state.

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The exam administered among North Carolina's college students differed considerably from those provided by other states. First, it employed completion questions instead of multiple-choice as did so many of the others. Second, no maps were involved; only mental-maps could be used. Third, it was patterned and indeed utilized questions from an exam sponsored by the N.Y. Times in 1950 which was administered to 4,752 students throughout the United States and reported in the June 11, 1951 issue. The main reason for adopting this exam as the prototype for our exam was to permit comparison through time. It was possible now to determine whether students today were more or less geographically sophisticated than their counterparts in 1950. Obviously many questions could not be directly used in this comparison since geography changes through time and questions on the original exam were no longer applicable. However, approximately 25% of the questions were usable which made for a significant sample. The test was composed at UNC-CH and sent out to the participating departments throughout the state for duplication and administration. The completed questionnaires were returned to UNC where they were corrected and processed electronically. The dismal results met our expectations.

Before analyzing the scores, an examination of the test's descriptive information is in order. Eight schools within the university system were involved in the testing and administered exams to approximately 2200 students in introductory courses. Of this total about 1875 tests were valid, the others not allowable because of some procedural inconsistancy. Ninety percent of the students taking this exam ranged in age from 17 years to 26 years with greatest numbers in the 18 and 19 year-old category. Fifty-one percent were males and 49 percent females while the class standing showed 23% to be freshmen, 53% to be upperclassmen leaving 24% who did not signify their standing. It is suspected that a majority of those who did not list their class were freshmen. The academic background of the students tested revealed one reason for their geographic ignorance. Seventy-one percent never had reference to geography in their elementary schooling; 65% never had a course in Junior High School relating specifically to geography, and 73% had no geography in Senior High School. No wonder the lack of geographic factual knowledge.

The student's exposure to local, national and world news which might promote some understanding of geography was gained largely from Radio and TV. Fully 80% reported these media as their main source of news and it is expected that TV was largely responsible for that statistic. The number of hours spent watching and listening mostly ranged from 2 - 7 hours with 3 hours representing the mode. The peripatetic nature of the sample was revealed in the number of states and countries visited by the students. Ten students had never been outside the State of North Carolina and only 58% had visited at least ten states. Six students reported having been to all fifty states. As for travel to other countries, 44% have not gone outside the US and only 23% visited at least one other country. All in all, these data indicate that our North Carolina citizens have travelled little, both nationally and internationally; have received very little academic training in geographic awareness, and rely mostly on TV and Radio for their education in geography.

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These shortcomings are evidenced in the poor showing of student test scores. If 70% is considered a passing grade for most exams, then 97% of the freshmen and 93% of the upperclassmen flunked; averaging out to 95% for the entire sample. The highest grade was 93% while almost 3/4 of the students scored less than 50%. Truly these are depressing statistics.

A breakdown of scoring on individual questions illustrates the extent of geographic ignorance displayed by our students. When asked the approximate 1980 population of the United States, only 8.4% could give the correct answer. However, of those who answered, numbers ranged from 100,000 to 236 billion. Asked to name the two largest states, less than 50% could answer Alaska and Texas; even less (21%) knew that Rhode Island and Delaware were the two smallest states in size. Asked to name those states which border the Atlantic Ocean and Gulf of Mexico, just three out of a hundred students could successfully answer. The dismal results go on. Eighty-eight percent could not name all of the Great Lakes while only 4% knew all of the states that border the Great Lakes; 80% did not know the oceans of the world by size; 1.5% were aware of the population size of the Soviet Union but less than 1% could name all the countries bordering on the USSR. Of the 28 countries in Africa lying south of the Sahara and north of the Republic of South Africa, less than 7% could name three of them. But 74% could not name even one country in this group. Roughly a third of the respondents knew that the Seine River is in France; only 27% recognized the Amazon as lying within Brazil; and merely 20% could identify the Ganges River as associated with India.

A small sampling of questionnaires provided some insight to the extent of the student's confusion and disorder regarding factual geographic information. Asked which States a person would drive through to get from Duluth to Seattle, answers included such States as Nevada, Ohio, and Tennessee and one plaintive admission, "I have never honestly heard of Duluth." Requested to name the State in which Cape Cod is located, responses ranged from Maine, New Hampshire and Pennsylvania along the Atlantic Coast to Florida. Told to list where selected cities and rivers were to be found, replies showed Dublin to be in Ohio, Vladivostok in Germany, Lima in Italy, the Ganges in Brazil and the Amazon in Egypt. Hoping to learn whether students understood the concept of time on the earth's surface, they were asked to give the time of places in the United States and in London equivalent to Eastern Standard Time. Answers ranged around the clock and included an exasperated "Who cares!" Other insightful answers offered such incorrect remarks as "Africa is the only country in the Americas that is larger than the United States;" "Texas borders on the Pacific Ocean;" "the Soviet Union lies between Panama and Nicaragua," or equally strange, "Cuba" lies between these countries. Closer to home, it was found that West Virginia borders on the State of North Carolina as does the "State of Atlanta." Also, the Tarheel State's population ranges from 25,000 to 250 million people, and Atlantic Beach is the largest deep-water port in North Carolina. It is important to keep in mind that these answers represent a minority of students who chose to reply to these particular questions. Most did not.

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School_____ Name_____Age____

Class_____ Male_____Female_____

1. How many Geography courses have you had (not listed as social studies) in:
   a. Elementary School_____
   b. Junior High School _____
   c. Senior High School _____

2. Which of the media mainly provides you with news of the world? _____How often (hours per week)?_____

3. Approximately how many states have you visited?_____
   How many countries?_____

Please answer the questions below to the best of your ability. THIS IS NOT AN EXAM!!!!! You are one of approximately 2000 students across the state completing this questionnaire. Your performance will help us to gauge the extent of, level of, and need for, training in geography among North Carolina students. Place your answers in the space(s) below each question; do not write in the spaces to the extreme right.

GEOGRAPHY QUESTIONNAIRE

Point Value	Question	No. Correct
1	1. What is the approximate 1980 population of the United States? _____	/_____
2 each	2. Name the two largest states in area? _____ _____	/_____
2 each	3. Name the two smallest states in area? _____ _____	/_____
1 each	4. In what states will you find the following? a. Mt. Mitchell _____ b. Grand Canyon _____ c. Mammoth Cave _____ d. Mt. St. Helens _____ e. Cape Cod _____	/_____
1 each	5. Name the states through which you would pass in traveling by automobile on the most direct route between Duluth and Seattle. _____ _____ _____ _____ _____	/_____

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1/2 each

6. List the states in the United States that border the Atlantic and Gulf Coasts.

_____ _____ _____
_____ _____ _____
_____ _____ _____
_____ _____ _____
_____ _____ _____
_____ _____ _____ /_____

1 each

7. List the states that border on the Pacific Ocean. _____ _____
_____ _____ _____ /_____

1 each

8. When it is noon in Raleigh, what time is it in:
a. Chicago? _____
b. San Francisco? _____
c. Denver? _____
d. London? _____ /_____

1 each

9. Name the Great Lakes? _____ _____
_____ _____ _____ /_____

1/2 each

10. Which states border the Great Lakes?

_____ _____ _____
_____ _____ _____
_____ _____ /_____

1 each

11. List, in order of size, the four oceans of the world. _____
_____ _____ _____ /_____

2 each

12. What is the approximate 1980 population of:
a. The World _____
b. The Soviet Union _____
c. Great Britain _____
d. Canada _____ /_____

1/2 each

13. In what countries are the following cities located?
a. Baghdad _____
b. Lisbon _____
c. Dublin _____
d. Budapest _____
e. Nanking _____
f. Manila _____
g. Munich _____
h. Lima _____
i. Vladivostok _____

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j. Capetown _____
k. Osaka _____
l. Madras _____ /_____

1 each — 14. What three European countries still have dependencies in the Caribbean area?
_____ _____ _____ /_____

1 — 15. Name the country in the Americas that is larger than the U.S. in area.
_____ /_____

1 — 16. What country lies between Panama and Nicaragua? _____ /_____

1 each — 17. Name at least 10 countries that border on the U.S.S.R.
_____
_____ _____ _____
_____ _____ _____
_____ _____ _____ /_____

1 each — 18. Name any three African countries lying between The Saharan Desert and the Republic of South Africa.
_____ _____ _____ /_____

1 each — 19. In what countries are the following rivers mainly found?
a. Seine _____
b. Amazon _____
c. Ob _____
d. Indus _____
e. Ganges _____ /_____

1 each — 20. In what ocean is each of the following islands (island groups) found?
a. The Falkland Islands _____
b. Madagascar _____
c. Midway Island _____
d. Ellesmere Island _____
e. Grenada _____ /_____

1 each — 21. Which states border North Carolina?
_____ _____
_____ _____ /_____

1 — 22. Which city in North Carolina has the largest population? _____ /_____

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1 23. What is the approximate 1980 population of North Carolina? _____ /_____

1 24. Approximately what is the distance from Asheville to Wilmington? _____ /_____

1 25. Which is the largest deep-water port city in North Carolina? _____ /_____

100 Points

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KEY

School_____ Name_____Age____

Class_____ Male_____Female_____

1. How many Geography courses have you had (not listed as social studies) in:
   a. Elementary School_____
   b. Junior High School _____
   c. Senior High School _____

2. Which of the media mainly provides you with news of the world? _____How often (hours per week)?_____

3. Approximately how many states have you visited?_____
   How many countries?_____

Please answer the questions below to the best of your ability. THIS IS NOT AN EXAM!!!!! You are one of approximately 2000 students across the state completing this questionaire. Your performance will help us to gauge the extent of, level of, and need for, training in geography among North Carolina students. Place your answers in the space(s) below each question; do not write in the spaces to the extreme right.

GEOGRAPHY QUESTIONNAIRE

Point Value	Question	No. Correct
1	1. What is the approximate 1980 population of the United States? 226 Million + 5 million	/_____
2 each	2. Name the two largest states in area? Alaska Texas	/_____
2 each	3. Name the two smallest states in area? Rhode Island Delaware	/_____
1 each	4. In what states will you find the following? a. Mt. Mitchell — North Carolina b. Grand Canyon — Arizona c. Mammoth Cave — Kentucky d. Mt. St. Helens — Washington e. Cape Cod — Massachusetts	/_____
1 each	5. Name the states through which you would pass in traveling by automobile on the most direct route between Duluth and Seattle. Minnesota North Dakota Montana Idaho Washington	/_____

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1/2 each

6. List the states in the United States that border the Atlantic and Gulf Coasts.

Maine	New Jersey	Florida	
Massachusetts	Delaware	Alabama	
New Hampshire	Virginia	Louisiana	
Rhode Island	New York	Mississippi	
Connecticut	South Carolina	Texas	
Georgia	Maryland	North Carolina	/_____

1 each

7. List the states that border on the Pacific Ocean. California, Oregon, Washington, Hawaii, Alaska /_____

1 each

8. When it is noon in Raleigh, what time is it in:

a. Chicago? 11:oo A.M.
b. San Francisco? 9:oo A.M.
c. Denver? 10:oo A.M.
d. London? 5:oo P.M. (6:oo P.M. OK) /_____

1 each

9. Name the Great Lakes? Superior, Michigan, Huron, Erie, Ontario /_____

1/2 each

10. Which states border the Great Lakes?

Minnesota	Michigan	New York	
Illinois	Ohio	Pennsylvania	
Wisconsin	Indiana		/_____

1 each

11. List, in order of size, the four oceans of the world.

Pacific, Atlantic, Indian, Arctic /_____

2 each

12. What is the approximate 1980 population of:

a. The World 4.5 bill. (+ .5 bill.)
b. The Soviet Union 267 mill. (+ 5 mill.)
c. Great Britain 56 mill. (+ 5 mill.)
d. Canada 25 mill. (+ 3 mill.) /_____

1/2 each

13. In what countries are the following cities located?

a. Baghdad Iraq
b. Lisbon Portugal
c. Dublin Ireland
d. Budapest Hungary
e. Nanking China
f. Manila Phillipines
g. Munich W. Germany
h. Lima Peru
i. Vladivostok USSR

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j. Capetown — South Africa
k. Osaka — Japan
l. Madras — India /_____

1 each — 14. What three European countries still have dependencies in the Caribbean area?
Britain ___ France ___ Netherlands /_____

1 — 15. Name the country in the Americas that is larger than the U.S. in area.
Canada /_____

1 — 16. What country lies between Panama and Nicaragua? Costa Rica /_____

1 each — 17. Name at least 10 countries that borde on the U.S.S.R.
Finland, Poland, Hungary, Norway, Turkey, Iran, Romania, North Korea, China, Czechoslovakia, Afghanistan /_____

1 each — 18. Name any three African countries lying between The Saharan Desert and the Republic of South Africa.
(See bottom) /_____

1 each — 19. In what countries are the following rivers mainly found?
a. Seine — France
b. Amazon — Brazil
c. Ob — USSR
d. Indus — Pakistan
e. Ganges — India /_____

1 each — 20. In what ocean is each of the following islands (island groups) found?
a. The Falkland Islands — Atlantic
b. Madagascar — Indian
c. Midway Island — Pacific
d. Ellesmere Island — Arctic
e. Grenada — Atlantic /_____

1 each — 21. Which states border North Carolina?
South Carolina, Virginia, Tennessee, Georgia /_____

1 — 22. Which city in North Carolina has the largest population? Charlotte /_____

#18 (Guinea, Sierra Leone, Liberia, Ivory Coast, Nigeria, Chana, Togo, Dahomey, Cent. Afr. Rep., Somali Rep., Equat. Guinea, Gabon, Congo, Uganda, Kenya, Zaire, Botswana, Rwanda, Burundi, Tanzania, Angola, Namibia, Zambia, Mozambique, Malawi, Cameroon, Cent. Afr. Empire, Cabinda, Zimbabwe)

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1 23. What is the approximate 1980 population of North Carolina? 5.9 Million (+.5 mill.) /_____

1 24. Approximately what is the distance from Asheville to Wilmington? 320 miles (+25m.) /_____

1 25. Which is the largest deep-water port city in North Carolina? Wilmington /_____

100 Points

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POINT SCORES

Score		Cumulative Frequency	Cumulative %
FRESHMEN			
1		2	.47
25		109	25.41
50		337	78.55
69		417	97.20
78.5		425	99.7
89	(1)	429	100.0
UPPERCLASSMEN			
0		1	.10
25		218	22.07
50		694	70.24
69.5		922	93.3
81		978	99.0
90		987	99.9
92.5	(1)	988	100.0
ALL			
0		1	.05
25		446	23.9
50		1378	73.9
69.5		1770	94.96
70		1775	95.23
75		1819	97.59
80		1845	99.0
86		1858	99.68
90		1863	99.95
92.5	(1)	1864	100.0

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COMPARISON OF 1984 AND 1950 TEST SCORES

Question	1984 F	1984 U	1984 A	1950 F	1950 U	1950 A	DIFF F	DIFF A
#1	6.53	9.10	8.37	43.2	49.4	46.2	-36.7	-37.8
#4b	36.6	42.6	40.8	39.2	38.5	38.8	-2.6	+2.0
#5			4.0	15.0	19.8	17.3		-13.3
#8a	52.0	58.5	54.5	66.3	71.9	69.3	-14.3	-14.8
b	53.8	56.4	53.8	60.2	67.7	63.8	-6.4	-10.0
c	46.6	47.9	46.1	57.2	64.6	60.8	-10.6	-14.7
d	25.9	29.2	27.3	12.9	11.7	12.3	+13.0	+15.0
#9			11.9	40.9	52.0	46.2		-34.3
#10	2.6	4.6	3.6	3.6	5.5	4.5	-1.0	-.9
#11			20.3	24.8	26.6	25.7		-5.4
#12a	19.1	26.5	23.8	22.3	28.7	25.4	-3.2	-1.6
b	1.2	1.9	1.5	15.9	19.3	17.5	-14.7	-16.0
c	2.8	4.3	3.6	8.7	9.1	8.9	-5.9	-5.3
d	5.1	3.5	3.9	1.9	2.8	2.3	+3.2	+1.6
#13b	12.6	20.4	17.4	54.6	70.8	62.4	-42.0	-45.0
c	47.3	56.9	52.7	78.2	86.7	82.3	-30.9	-29.6
d	21.5	26.5	23.9	57.6	65.6	61.4	-36.1	-37.5
e	39.9	44.6	42.6	92.0	97.7	94.7	-52.1	-52.1
f	24.9	29.6	27.4	80.7	86.5	83.5	-55.8	-56.1
g	47.8	49.7	48.9	78.8	85.6	82.1	-31.3	-33.2
h	35.9	43.8	40.7	74.2	89.1	81.4	-38.3	-40.7
i	44.8	47.4	46.2	83.1	89.9	86.4	-38.4	-40.2
j	19.1	26.7	23.2	68.2	76.1	72.0	-49.1	-48.8
#14			13.8	39.0	40.3	39.8		-26.0
#19a	28.4	37.1	34.4	71.0	73.4	72.1	-42.6	-37.7
b	27.0	28.3	27.2	76.3	78.7	77.5	-49.3	-50.4
c	4.9	6.7	6.2	28.6	31.0	29.8	-23.7	-23.6

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T E S T

Student Background Data

School		No. taking Exam	%
Appalachian State		144	7.7
UNC-Wilmington		78	4.2
UNC-Greensboro		235	12.6
Pembroke State		70	3.8
WCU		134	7.2
UNC-Chapel Hill		486	26.1
ECU		625	33.4
UNC-Charlotte		87	4.7
	Total	1859	99.7

Age		Number	%
17		56	2.9
18		483	25.8
19		471	25.3
20		325	17.4
21		205	10.9
22		72	3.8
23		26	1.4
24		23	1.2
25		20	1.1
26		15	.8
	Total	1802	90.0

Class		Number	%
Freshmen		439	23.0
Upperclassmen		988	53.0
Missing Value		447	24.0
	Total	1874	100.0

Sex		Number	%
Male		922	49.5
Female		876	47.0
Missing Value		65	3.5
	Total	1854	100.0

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Courses Taken	Number	%
Elementary School		
0	1329	71.2
1	385	20.9
2	96	5.2
3	29	1.6
Total	1839	98.6
Junior High School		
0	1207	65.0
1	556	29.9
2	79	4.2
3	15	.8
Total	1857	99.9
Senior High School		
0	1360	72.6
1	430	23.1
2	51	2.7
3	19	1.0
Total	1860	99.4

News Source	Number	%
Newspaper	298	16.0
Newsmagazines	18	1.0
TV-Radio	1484	79.6
Error	51	2.7
Total	1851	99.3

Media Hours Spent	Number	%
0	33	1.8
1	96	5.4
2	237	12.7
3	343	18.4
4	207	11.1
5	300	16.1
6	133	7.1
7	193	10.4
8	55	3.0
9	80	4.3
10	70	3.8
Total	1744	93.7

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States Visited	Number	%
0	10	1.5
1	8	.5
2	29	1.6
3	85	4.6
4	120	6.4
5	161	8.5
6	124	6.7
7	139	7.5
8	125	6.7
9	67	3.6
10	210	11.3
15	137	7.4
20	145	7.8
25	77	4.1
30	66	3.5
35	25	1.3
40	23	1.2
45	9	.5
50	6	.3
Cum Total	1867	Cum % 99.9

Countries Visited	Number	%
0	823	44.2
1	422	22.6
2	263	14.1
3	109	5.8
4	52	2.8
5	45	2.4
6	36	2.0
7	11	.6
8	22	1.2
9	23	1.3
10	20	1.1
Total	1810	97.1

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TEST RESULTS

	CORRECT ANSWER	% RIGHT FRESHMEN	UPPERCLASSMEN	ALL	
1.	226 Million	6.53	9.1	8.37	
2.	Alaska	51.75	52.33	51.13	(45.7)
	Texas	83.45	85.53	84.93	
3.	Rhode Island	76.22	77.13	76.13	(21.2)
	Delaware	25.41	27.43	27.36	
4.	North Carolina	34.50	41.90	38.89	
	Arizona	36.60	42.61	40.77	
	Kentucky	7.46	11.94	10.52	(1.9)
	Washington	66.43	69.84	69.10	
	Massachusetts	31.93	45.04	40.56	
5.	Minnesota	15.35	20.24	18.40	
	North Dakota	21.45	27.43	26.12	
	Montana	20.75	25.91	24.36	
	Idaho	23.08	27.93	25.32	(4.0)
	Washington	42.42	41.40	40.28	
6.	ME NJ FL MA DE AL NH VA LA RI NY MS CT SC TX GA MD NC	0 = 4.20	0 = 3.64	0 = 3.97	
		2.10	3.74	3.06	
7.	California	91.84	92.21	92.43	
	Oregon	58.04	60.22	58.85	
	Washington	83.45	85.03	85.62	(16.7)
	Alaska	26.11	35.02	31.97	
	Hawaii	22.84	28.74	26.56	
8.	11:00 AM	52.00	58.50	54.45	
	9:00 AM	53.84	56.37	53.76	
	10:00 AM	46.62	47.83	46.08	(15.2)
	5:00 or 6:00 PM	25.87	29.15	26.56	
9.	Superior	44.52	50.10	48.18	
	Michigan	71.33	76.33	74.67	
	Huron	28.44	30.97	30.13	
	Ontario	41.96	47.26	45.17	(11.9)
	Erie	59.67	72.87	68.40	
10.	MN MI NY IL OH PA WI IN	0 = 17.25	0 = 13.86	0 = 15.61	
		2.56	4.55	3.59	
11.	Pacific	66.90	70.75	68.67	
	Atlantic	65.05	66.70	66.04	
	Indian	50.12	49.60	49.73	(20.3)
	Arctic	27.27	28.44	28.54	

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12.	4.5 Billion	19.11	26.52	23.76
	267 Million	1.17	1.92	1.45
	56 Million	2.80	4.25	3.59
	25 Million	5.13	3.54	3.86
13.	Iraq	8.62	11.94	10.09
	Portugal	11.59	20.44	17.44
	Ireland	47.32	56.88	52.68
	Hungary	21.45	26.51	23.87
	China	39.86	44.64	42.60
	Philippines	24.94	29.55	27.36
	West Germany	47.79	49.69	48.87 (.5)
	Peru	35.89	43.82	40.67
	USSR	44.75	47.36	46.19
	South Africa	19.11	26.72	23.23
	Japan	29.60	34.92	32.78
	India	5.60	9.11	8.16
14.	Britain	39.39	50.50	46.51
	France	37.30	41.49	39.81 (13.8)
	Netherlands	24.47	26.01	26.18
15.	Canada	49.18	48.17	47.80
16.	Costa Rica	6.29	7.79	7.19
17.	FIN NOR N. KOR POL TURK CHINA IRAN HUNG ROM CZECH AFGHAN	0 = 34.03	0 = 31.78	0 = 33.32
		0.47	0.41	0.22
18.	(28 Possible)	0 = 73.66 4.43	0 = 65.78 8.20	0 = 69.05 6.92
19.	France	28.44	37.05	34.39
	Brazil	27.04	28.34	27.15
	USSR	4.90	6.68	6.17
	Pakistan	1.63	2.11	1.29 (.5)
	India	18.42	23.37	20.71
20.	Atlantic	52.45	49.39	49.25
	Indian	26.57	28.03	27.47
	Pacific	51.52	49.59	49.70
	Arctic	6.53	6.88	6.71 (2.3)
	Atlantic	41.49	44.33	42.54
21.	Virginia	92.31	93.62	93.19
	South Carolina	94.41	95.24	94.96
	Tennessee	85.08	87.34	86.00 (35.2)
	Georgia	39.16	45.26	43.03
22.	Charlotte	61.07	70.64	66.15
23.	5.9 Million	4.43	7.79	7.14
24.	320 miles	15.08	14.07	13.84
25.	Wilmington	39.39	50.30	45.82

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